

Remarks/Arguments

Reconsideration of this application is requested.

Claim Status

Claims 1-6 are pending. Since no claims are added, amended or canceled, no listing of claims listing is required under 37 CFR 1.121.

Claim Rejections

Claims 1-6 are rejected under 35 USC 103(a) as obvious over Fukushima (US 6,236,428) in view of Ikeyama (US 7,068,310). In response, applicant traverses the rejections.

The present invention is directed to an image pickup device that images a plurality of object images by using a plurality of solid-state image pickup elements. In particular, the present invention includes two solid-state image pickup elements and drive circuits that drive the respective solid-state image pickup elements. One of the solid-state image pickup elements is selected by a selector circuit and is supplied with a driving power supply voltage while the other non-selected solid-state image pickup element is not supplied with the driving power supply voltage.

Fukushima is cited for disclosing an image pickup device provided with CCD 21R and 21L and timing signal generator (TG) 24R and 24L which output timing pulses and synchronization signals to CCD 21R and 21L, respectively (FIG. 2). Furthermore, the Action asserts that column 7, lines 23-28 teaches that when the power is turned on, data controller 28 outputs a reset signal generating a drive pulse to TG 24R and 24L. In FIG. 5, data controller 28 selects both CCD 21R and 21L and supplies a predetermined power supply voltage in order to generate an output. However, applicant respectfully submits that Fukushima merely controls TG 24R and 24L and does not disclose the selective supply of power voltage to the image pickup elements.

For example, page 2 of the Action asserts that outputs from both CCD 21R and 21L are controlled by the controller, such that a driving voltage to CCD 21R and 21L are controlled as well. Applicant respectfully disagrees because an output

of an image pickup element changes according to an electric charge quantity accumulated in a floating diffusion. Therefore, it is possible to control timing for generating an image pickup element output signal by controlling the timing for transferring an electric charge from a horizontal register of each of the image pickup elements to the floating diffusion even in a state where a power supply voltage is continuously supplied to the two image pickup elements. Thus, under such a control method, it is impossible to minimize the power consumption in an image pickup element.

The present invention, by contrast, selectively supplies a power supply to output amplifiers to generate output voltages according to electric charges accumulated in the floating diffusions of the image pickup elements (FIG. 2). Fukushima merely supplies a drive pulse to shift registers of the CCDs. This distinction is critical. Moreover, Ikeyama is directed to a CCD with horizontal and vertical photoelectric converting elements and does not remedy the deficiencies of Fukushima.

Since Fukushima and Ikeyama do not disclose or suggest each and every element of claim 1, claim 1 and claims 2-6 dependent thereon are not obvious over Fukushima in view of Ikeyama. The rejections under 35 USC 103 should therefore be withdrawn.

Conclusion

This application is now believed to be in condition for allowance. The Examiner is invited to telephone the undersigned to resolve any issues that remain after entry of this amendment.


Appl. No. 10/532,417
Reply dated March 28, 2008
Reply to Office Action of December 28, 2007

Atty. Ref. 81784.0326
Customer No. 26021

Any fees due with this response may be charged to our Deposit Account No.
50-1314.

Respectfully submitted,
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Date: March 28, 2008

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